

WHAT IS CLAIMED IS:

1. A liquid crystal display comprising:

a liquid crystal panel assembly including a plurality of gate lines, a data line intersecting the gate lines, and a plurality of pixels connected to the gate lines and the data line;

5 a signal controller receiving image data and a synchronization signal from an external device, processing the image data and generating control signals for displaying the image data;

a voltage generator generating a plurality of gray voltages and a gate voltage for driving the panel assembly;

10 a gate driver sequentially scanning the gate lines by applying the gate voltage, each scanning being performed in a horizontal period including a first period and a second period following the first period;

a master data driver sequentially applying data voltages selected from the gray voltages corresponding to the image data to the data line, each application is performed in the second period; and

15 a slave data driver storing the data voltage applied to the data line in each second period and applying the stored data voltage to the data line in each first period.

2. The liquid crystal display of claim 1, wherein two data voltages sequentially applied to the data line have opposite polarity with respect to a predetermined voltage and the
20 slave driver inverts the polarity of the stored voltage before application to the data line.

3. The liquid crystal display of claim 2, wherein the master driver and the slave driver are disposed at opposite sides of the panel assembly.

4. The liquid crystal display of claim 2, wherein the slave driver comprises:

a storage for storing the data voltages applied to the data line in the second period; and

an inverter for inverting the polarity of the data voltages stored in the storage, the storage

5 and the inverter alternately connected to the data line.

5. The liquid crystal display of claim 4, wherein the storage comprises a capacitor.

6. The liquid crystal display of claim 4, wherein the inverter comprises an

10 operation amplifier in a negative feedback configuration having a non-inverting input terminal supplied with the predetermined voltage.

7. The liquid crystal display of claim 4, wherein the slave driver further comprises

a switch unit selectively connecting the storage and the inverter to the data line.

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8. The liquid crystal display of claim 7, wherein the switch unit comprises a first

switch connected between the inverter and the data line and a second switch connected between the storage and the data line, the first switch and the second switch alternately activated.

20 9. The liquid crystal display of claim 4, wherein the slave driver further comprises

an operational amplifier buffering the data voltage stored in the storage and provides the buffered data voltage for the inverter.

10. The liquid crystal display of claim 4, wherein the slave driver is formed on the panel assembly.

11. The liquid crystal display of claim 2, wherein the predetermined voltage is applied to the pixels.

12. A method of driving a liquid crystal display including first and second gate lines, a data line, a first pixel connected to the first gate line and the data line, and a second pixel connected to the second gate line and the data line, the method comprising:

10 scanning the first gate line;
applying a first data voltage to the data line during the scanning of the first gate line;
storing the first data voltage applied to the data line during the scanning of the first gate line;
scanning the second gate line;
15 applying the stored first data voltage to the data line during the scanning of the second gate line; and
applying a second data voltage to the data line during the scanning of the second gate line.

13. The method of claim 12, further comprising:
20 inverting polarity of the stored first data voltage before the application of the stored first data voltage.

14. The method of claim 13, further comprising:

buffering the stored data voltage before the polarity inversion.

15. A liquid crystal display comprising:

first and second pixels;

5 first and second gate lines connected to the first and the second pixels, respectively;

a first data line connected to the first and the second pixels;

a gate driver scanning the first and the second gate lines in first and second periods,
respectively;

a master driver applying first and second data voltages to the data line in the first and the
10 second periods, respectively; and

a slave data driver storing the first data voltages in the first period and applying the stored
first data voltage to the data line in the second period.

16. The liquid crystal display of claim 15, wherein the first and the second data
15 voltages have opposite polarity with respect to a predetermined voltage and the slave driver
inverts the polarity of the stored first voltage before application to the data line.

17. The liquid crystal display of claim 16, wherein the slave driver comprises:

a storage for storing the first data voltage; and

20 an inverter for inverting the polarity of the stored first data voltage, the storage and the
inverter are alternately connected to the data line.

18. The liquid crystal display of claim 17, wherein the slave driver further comprises a switch unit selectively connecting the storage and the inverter to the data line.

19. The liquid crystal display of claim 18, wherein the switch unit comprises a first
5 switch connected between the inverter and the data line and a second switch connected between
the storage and the data line, the first switch and the second switch alternately activated.